

FIGURE 1.1

Input and
output impacts
in a typical
hotel

INPUTS

ENERGY

- electricity (for lighting, heating, refrigeration, ventilation and to power appliances)
- fuel (gas, oil, petrol, diesel, steam etc):
 - for heating and other equipment
 - for the transportation of goods and guests

REFRIGERATION

- air-conditioning equipment
- freezers
- chiller cabinets
- minibars

WATER

- drinking
- cleaning
- guest rooms
- laundry
- swimming pools
- spas
- irrigation

FURNITURE, FITTINGS AND APPLIANCES

- electrical appliances
- furniture
- carpets
- towels
- linens
- crockery
- cutlery etc.

CONSUMABLES

- toilet and other soft paper
- toiletries
- detergents and cleaning products
- fertiliser and pesticides
- office products (paper, printed matter etc.)
- food and beverages

OUTPUTS

EMISSIONS

Depending on the fuel used by the power generator (electricity), or the fuel used at the hotel:

- hydrocarbons (HCs)
- carbon dioxide (CO₂)
- nitrogen oxides (NO_x)
- carbon monoxide (CO)
- sulphur oxides (SO_x)
- lead and particulate matter

Methane (CH₄) and nitrous oxide (N₂O) are also emitted in minor quantities by heat and electricity production

EMISSIONS

Ozone-depleting and other substances:

- chlorofluorocarbons (CFCs)
- hydrochlorofluorocarbons (HCFCs)
- hydrofluorocarbons (HFCs)
- hydrocarbons (HCs)

EFFLUENT

- 'grey' water from guest baths and basins, kitchen sinks etc.
- water contaminated by cleaning materials, detergents, phosphates etc.
- water contaminated by chlorine from backwashing swimming pools
- 'black' water from WCs

EMISSIONS AND WASTE

- plastics
- wood
- metals
- glass
- glues and paint
- fabrics
- non-biodegradable chemicals
- hazardous materials and packaging

EMISSIONS AND WASTE

- manufacturing emissions from production of the products
- waste packaging such as paper and card, glass bottles and jars, plastic bottles and other plastic items
- waste shampoo, conditioner, detergents, cleaning materials, non-biodegradable chemicals
- paints, waste fertiliser and pesticides, batteries, fluorescent lamps (some of which constitute hazardous waste)
- office paper, card, ink cartridges etc.
- organic waste (including food, oils and kitchen grease)
- waste packaging
- aluminium cans and other metals
- glass bottles and other glass items
- fertiliser and pesticides if not ecological products